

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000449**Date Inspected:** 11-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lefeng and Fu Yuhong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** 77, 89 and 144 meter mock-up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Sherri Brannon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

77 Meter Mockup:

ZPMC QA Fu Yuhong stated that ZPMC is practicing bending reinforcement ring for diaphragm plates.

89 Meter Mockup-Diaphragm:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Wu Zhibin ID #049804 tack welding joining piece #SA13 to p1236-1. Mr. Zhibin was observed welding in the 1G (flat) position utilizing a submerged arc welding (SAW) process with a 4.8mm diameter electrode, filler metal brand LA-85, class E6010 machine. Mr. Zhibin appeared to be using proper inter-pass cleaning methods. QA Inspector Brannon observed the ZPMC QC Inspector Xu Lefeng verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 180°C and measured the welding parameters to be 613 amps, 30 volts and a travel speed of 470mm/min. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-3221-B-U3c-S, Revision 1.

114 Meter Mockup-skin plate D:

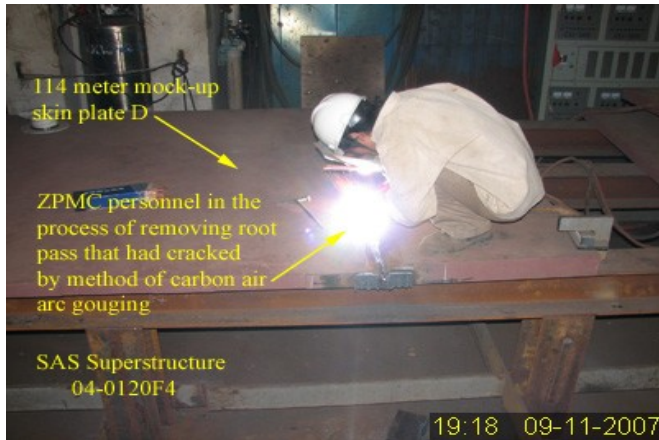
QA Inspector Brannon was informed by ZPMC QA Fu Yuhong that the root pass had cracked and that ZPMC will be removing the entire root weld by method of carbon arc gouging. After removing the weld metal ZPMC will

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pull the plates apart and remove the slag by grinding, perform magnetic particle testing and re-bevel the two plates.

The following digital photograph illustrates ZPMC in the process of removing root pass by method of carbon air arc gouging weld Joint #5 skin plate D, 114 meter mock-up.



Summary of Conversations:

As stated within this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon, Sherri	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
